GEOGRAPHICAL NOTES.

BY

GEO. C. HURLBUT, *Librarian.*

GEOGRAPHICAL SOCIETIES, JOURNALS AND CONGRESSES. —Dr. H. Wichmann has sent his review of geographical organizations and journals, brought down to 1891, and filling pp. 463–484 in the *Geographisches Jahrbuch* for that year.

Since the last review (1888) three societies have been revived or changed, and nine new societies have been founded: one at Newcastle-on-Tyne, one at Genoa, one at Christiania, two at Helsingfors, one at Moscow, one at the City of Guatemala, one at La Paz, Bolivia, and one at Ouro Preto, Brazil.

There are now in existence 113 societies (with 45 branches), established in 147 cities, divided among 24 countries.

France has 31 societies, with a total of 18,650 members; Germany 23 societies and 8,960 members; Great Britain (and the Colonies) 10 societies with 7,600 members; Italy 5, with 2,470 members; Austria-Hungary 3, with 1,830 members; Switzerland 6, with 1,788 members; the United States 3, with 1,760 members; Belgium 2, with 1,450 members; Russia 8, with 1,350 members; The Netherlands 2, with 1,230 members; Portugal 1, with 1,186 members; Sweden and Norway

2, with 1,156 members; Argentina 2, with 1,000 members; Brazil, 5 societies and 700 members; Denmark, 1 society with 510 members; Spain, 2 societies and 426 members; Romania, 1 society with 233 members; Japan, 1 with 200 members; Mexico, 1 with 150 members; Egypt, 1 with 100 members, and Guatemala, 1 society with 60 members. Dr. Wichmann has no data for the societies at Lima and La Paz.

The largest societies are: The Royal Geographical, 3,579 members; The *Zentralverein für Handelsgeographie*, Berlin, 3,000 members; the Paris *Société*, 2,300; the Reims *Société* 1,700; the Paris *Société de Géographie Commerciale*, 1,650; the Lille *Société*, 1,550; the Royal Scottish Geographical, 1,495; the American Geographical, 1,427; the Paris *Société de Topographie de France*, 1,228; the Lisbon *Sociedade*, 1,186; the Vienna *K. K. Geographische Gesellschaft*, 1,180; the Rome *Società Geografica Italiana* 1,115; the Tyneside Geographical, 1,100; the Berlin *Gesellschaft für Erdkunde*, 1,049; and the *Union Géographique du Nord de la France*, at Douai, 1,044. No other Society has 1,000 members. There is, perhaps, a typographical error in the number of 1,700 members credited to the Reims *Société*. This Association, founded in 1884, figures in Dr. Wichmann's review for 1888 as a doubtful quantity, with a mark of interrogation against it in each statistical column; and the rise from nothing to 1,700, in three years, gives the reader pause.

It is difficult to make a complete list of geographical journals. Dr. Wichmann enumerates 146, of which 118 are published by Societies. Fifty-two are in

French, 43 in German, 12 in English, 8 in Russian, 8 in Italian, 6 in Spanish, 5 in Portuguese, 3 in Dutch, 2 in Danish, 1 each in Swedish, Hungarian, Romanian and Japanese, and 3 in several tongues (that of Quebec in English and French, the two at Helsingfors in Swedish and Finnish, with numerous contributions in German and French).

Two journals are published in Africa, 4 in Australia, 8 in Asia, 13 in America, and 119 in Europe.

In his remarks on the International Congresses, Dr. Wichmann passes over the First Congress, held at Antwerp, in 1871. The true International Congresses were those held at Paris (1875) and Venice (1881). The Fourth Congress (Paris, 1889) and the Fifth (Berne, 1891) fell much below the other two in the number of visitors and the celebrity of individual names.

Dr. Wichmann makes the following comparison :

Members.		Actually Present. about	
Paris (1875)	1488	French, 350 (?) Foreigners, 250	600
Venice (1881)	1099	Italian, 450 Foreigners, 330	780
Paris (1889)	530	French, 300 (?) Foreigners, 150	450 (?)
Berne (1891)	300 (?)	Swiss, 150 Foreigners, 150	300

The nationality of foreigners present at each Congress is shown in the following list:

	Paris, 1875.	Venice, 1881.	Paris, 1889.	Berne, 1891.
French.....	—	about 100	—	about 50
Italians.....	14	—	27	10
Swiss.....	9	14	12	—
Germans.....	57	59	5	30

	Paris, 1875.	Venice, 1881.	Paris, 1889.	Berne, 1891.
Austro-Hungarians	31	50	2	20
Romanians	?	?	12	1
Russians	37	20	13	10
Scandinavians	26	12	7	2
Netherlanders	13	8	9	2
Belgians	27	13	9	4
British	6	15	9	10
Spaniards	7	10	5	2
Portuguese	4	5	14	3
Oriental and Egyptian	8	16	6	2
Americans (North and South)	15	10	20	2
Australians	?	?	5	2
	about 250	330	150	140–150

The falling off in 1889 is attributed, in part, to the fact that the French celebrated in that year the Centenary of the Revolution, an event which did not appeal to the sympathies of every people; and the Berne Congress followed, as Dr. Wichmann thinks, too closely on that of Paris. He is undoubtedly right; and it may be believed that the interests of geography would not suffer if the International Congresses were separated by a fixed interval of six or seven years.

National Geographical Congresses are held in Germany (the ninth met in Vienna in 1891); in Switzerland (the eighth at Neuchâtel in 1890), and in France, where the twelfth Congress assembled at Rochefort, in 1891.

THE GREATEST KNOWN DEPTHS OF THE SEA.—The following table is taken from an article by Dr. Supan on "Deep-Sea Exploration in the years 1888–1890," in *Petermanns Mitteilungen, Band* 38, *II.* In the original the soundings are given in metres:

	Lat.	Long. (Greenwich.)	Depth.
N. Atlantic Ocean	19° 39′ N.	66° 26′ W.	27,366 feet.
S. Atlantic Ocean	0 11′ S.	18° 15′ "	24 180 "
North Sea (Skagerrak)	near 58° 12′ N.	9° 30′ E.	2,651 "
Baltic Sea	" 58° 37′ "	18° 30′ "	1,401 "

	Lat.	Long. (Greenwich).	Depth.
Mediterranean Sea	35° 45′ N.	21° 46′ E.	14,436 feet
Black Sea.....near	42° 55′ "	33° 18′ "	8,589 "
Caribbean Sea..... "	19° — "	81° 10′ W.	20,568 "
Indian Ocean	11° 22′ S.	116° 50′ E.	20,358 "
N. Pacific Ocean	44° 55′ N.	152° 26′ "	27,937 "
S. Pacific Ocean	17° 4′ S.	172° 14′ W.	27,179 "
Bering Sea	54° 30′ N.	175° 32′ "	12,881 "
Japan Sea..... near	38° 30′ "	135° — E.	9 843 "
China Sea..... "	17° 15′ "	118° 50′ "	14,101 "
Sulu Sea	8° 32′ "	121° 55′ "	15,299 "
Sea of Celebes	4° 16′ "	124° 2′ "	16,769 "
Banda Sea	5° 24′ S.	130° 37′ "	*16,798 "
Flores Sea	7° 43′ "	120° 26′ "	16,798 "
Arctic Ocean	78° 5′ N.	2° 30′ W.	15,899 "
Antarctic Ocean	62° 26′ S.	95° 44′ E.	11,851 "

EGLI'S NOMINA GEOGRAPHICA.†—The first edition of this book appeared in 1872, and it has been for twenty years the recognized authority on the derivation and explanation of geographical names, within the scope of its plan. This plan embraces the world, but the principles of selection followed throw out an immense number of names, which either explain themselves or find their proper place in special dictionaries or gazetteers. Many others are excluded for want of trustworthy evidence as to their origin; for Dr. Egli sifts his authorities and traces the history of each word with ample learning and unwearied patience. His study of this fascinating subject has covered a period of thirty-three years, and its results are fitly represented by the two editions of his work. The first explained 17,000 names, and comparatively few of these are found among the 42,000 of the new edition. Some articles, such as *Aa*, *Aachen*, *Abessinia*, *Amazonas*, have been rewritten; and

* Dr. Supan rejects, as doubtful, the depth of 7315 metres assigned to this sea by Berghaus and others.

† Nomina Geographica. Sprach-und Sacherklärung von 42,000 geographischen Namen aller Erdräume. Von Dr. J. J. Egli. Zweite, vermehrte und verbesserte Auflage. Leipzig, Friedrich Brandstetter, 1892.

the letter *A*, which filled 44 pages of the first edition, will now require very nearly 100 pages.

In the article on *America* Dr. Egli notices Mr. Marcou's* perverse fancy about the origin of the name, and its natural consequence in Mr. Lambert's Peruvian dream.

The *Nomina Geographica* is issued in parts, and will be completed this year.

THE SPELLING OF GEOGRAPHIC NAMES.—The first report of the U. S. Board on Geographic Names has been published as *Ex. Doc. No. 16, House of Representatives, 52d Congress, 1st Session.*

The report gives a corrected list of the names of counties in the United States, and an alphabetical list of the 2,000 decisions rendered. These decisions, most of which relate to American names, are accepted by the various Departments at Washington. The principles for special application in the United States are:

1. That spelling and pronunciation which is sanctioned by local usage should in general be adopted.

2. Where names have been changed or corrupted, and such changes or corruptions have become established by local usage, it is not in general advisable to attempt to restore the original form.

3. In cases where what was evidently originally the same word appears with various spellings sanctioned by local usage, when applied to different features, these various spellings should be regarded as in effect different names, and as a rule it is inadvisable to attempt to produce uniformity.

4. Where a choice is offered between two or more names for the same place or locality, all sanctioned by local usage, that which is most appropriate and euphonious should be adopted.

5. The possessive form should be avoided whenever it can be done without destroying the euphony of the name, or changing its descriptive application.

---

* There is an error of date in the reference to the *Bulletin* of the Paris Geographical Society. Mr. Marcou's paper appeared, not in 1880, but in 1875; and a second article, the *Nouvelles Recherches*, continued the tale in 1888.

6. In names ending in "burgh," the final "h" should be dropped.

7. Names ending in "borough" should be abbreviated to "boro."

8. The word "center," as a part of a name, should be spelled as above and not "centre."

9. The use of hyphens in connecting parts of names should be discontinued.

10. The letters "C. H." (Court House) appended to the names of county seats should be omitted.

11. In the case of names consisting of more than one word, it is desirable to combine them into one word.

12. It is desirable to avoid the use of diacritic characters.

13. It is desirable to avoid the use of the words city and town as parts of names.

The system applied to names in foreign countries is almost identical with that adopted by the Council of the Royal Geographical Society in 1885, and published in the *Proceedings* for that year, pp. 535, 536. The broad principle there laid down was that "in writing geographical native names vowels should have their Italian significance and consonants that which they have in the English language." The detailed rules of this system, which contemplates only an approximation to the sound of the native names, were published in the *Proceedings* of the R. G. S. for February, 1892. It is there stated that the British Admiralty and War Office have used the system since 1885, that it has been accepted by the Foreign and Colonial Offices, and that the Colonies have been requested to adopt it in respect to names of native origin.

The systems followed by the French and the German Hydrographic Offices agree in the main with the English, and the influence of all these authorities works in the direction of uniformity.

It must, however, be admitted that the general practice in every country remains wholly unaffected by the example of reform. The Royal Geographical Society and the Board on Geographic Names write

Beirut, but English and American travellers ring the changes on *Beyroot*, *Beirout*, and *Beyrouth*, or insist upon the circumflex accent in the *rût*, which they erroneously suppose cannot then be mispronounced *rut*. The truth is that accents are a continual stumbling-block to the English printer and the English reader,* who will not learn their meaning and use. The scheme devised by the Royal Geographical Society does away with this cause of offence by retaining but one accent —the acute—to mark, where it is essential to mark, the syllable on which the stress falls in pronunciation; and the simplicity of all its rules may begin to be appreciated by the public before the twentieth century is far advanced.

It should be known that the Board on Geographic Names has to work at a disadvantage. The members receive no pay for their services; and the three Bulletins already issued could not have been printed without the help afforded by the Smithsonian Institution, the Coast and Geodetic Survey, and the Light House Board. This state of things reflects discredit on the Government.

THE GEOGRAPHICAL SOCIETY OF THE PACIFIC.—This Society, organized in March, 1881, has been known for eleven years as the worthy representative of geographical science on the Pacific coast. Its permanent control of the great work before it is now assured by its reor-

* In the first number of a work on Egypt (just published) by a member of several learned Societies, *Société* is printed *Sociètè*, and the name of Quatremère is twisted into Quaatêrmere.

ganization and incorporation in January last, with the following list of officers for the year 1892:

Organized March 16th, 1881. *Incorporated January 5th*, 1892.

THE GEOGRAPHICAL SOCIETY OF THE PACIFIC.

SAN FRANCISCO.

1892.

Officers for Current Year.

PRESIDENT:

GEORGE DAVIDSON, A.M., Sc.D.

VICE-PRESIDENTS:

T. E. SLEVIN, LL.D., JUSTICE RALPH C. HARRISON,
REV. ROBERT MACKENZIE, D.D.

TREASURER:

HARRY DURBROW.

HOME CORRESPONDING SECRETARY:

HON. JEREMIAH LYNCH.

FOREIGN CORRESPONDING SECRETARY:

P. W. POULSON, M.D.

RECORDING SECRETARY:

JOHN PARTRIDGE.

BOARD OF DIRECTORS:

PROF. GEORGE DAVIDSON, A.M., Sc.D.,
THOS. E. SLEVIN, LL.D., HARRY DURBROW,
JOHN PARTRIDGE, LOUIS L. NELSON,
ALFRED S. LOWNDES, CAPT. C. L. TAYLOR.

COUNCIL:

HON. JEREMIAH LYNCH, E. S. COOK, M.D.,
JOHN DOLBEER, MARK SHELDON,
HON. J. V. COFFEY, WM. HOOD, C.E.,
REV. ROBERT MACKENZIE, P. W. POULSON, M.D.,
CAPT. W. L MERRY, JUSTICE RALPH C. HARRISON,
HON. CHAS. GOODALL, CAPT. C. L. TAYLOR.

THE CELEBRATION AT ASTORIA.—The people of Oregon and Washington commemorated with ceremonies and rejoicings, on May 10–12, the hundredth anniversary of Capt. Gray's discovery of the Columbia River.

There is, perhaps, more zeal than discretion in the prevailing desire to multiply centenaries, but the enthusiasm displayed at Astoria was called forth by an entirely worthy occasion.

Capt. Robert Gray was born in Tiverton, R. I., in 1755, and died in Charleston, S. C., in 1806. He first visited the north-west coast in 1787, in command of the *Washington*, accompanied by the *Columbia*, under Capt. Kendrick, both vessels having been fitted out by some Boston merchants. On this voyage Gray observed what he took to be the mouth of a great river near latitude 46°. The commanders exchanged ships and Gray sailed in the *Columbia* to Canton and thence homeward, in 1790, the first navigator to carry the American flag around the globe.

In 1791 he sailed again to the north-west coast in the *Columbia Rediviva*, and began his search for the river he had seen on his first voyage. On the 29th of April, 1792, he met Vancouver, who could not be persuaded that he had failed to notice the entrance to the river. Capt. Gray proceeded, and on the 11th of May made the discovery, which he recorded in his log-book, in the following words:

"May 11th.—At half past seven, we were out clear of the bars, and directed our course to the southward, along shore. At eight, P.M., the entrance of Bulfinch's Harbor bore north, distance four miles; the southern extremity of the land bore south-south-east, half east, and the northern north-north-west; sent up the main-top gallant-yard and set all sail. At four, A.M., saw the entrance of our desired port bearing east-south-east, distance six leagues; in steering sails, and hauled our

wind in shore. At eight, A.M., being a little to windward of the entrance of the harbor, bore away, and run in east-north-east between the breakers, having from five to seven fathoms of water. When we were over the bar, we found this to be a large river of fresh water, up which we steered. Many canoes came alongside. At one, P.M., came to with the small bower, in ten fathoms, black and white sand. The entrance between the bars bore west-south-west, distant ten miles; the north side of the river a half mile distant from the ship; the south side of the same two and a half miles distance; a village on the north side of the river west by north, distant three-quarters of a mile. Vast numbers of natives came alongside; people employed in pumping the salt water out of our water-casks, in order to fill with fresh, while the ship floated in. So ends."

The river was named by Capt. Gray, and his own name is perpetuated in Gray's Harbor * on the coast of Washington.

JOHN MCLEAN.—Mr. David Boyle read before the Canadian Institute, of Toronto, in December, 1891, a paper (printed in the *Transactions* for April, 1892) on the discoverer of the Great Falls of Labrador. The paper was based on the manuscript journal of McLean, now in the possession of his son, Mr. Archibald McLean, of Buffalo.

John McLean was born in Argyleshire in 1797, or 1798, and entered the service of the Hudson Bay Company in the winter of 1820–21. He was sent from post to post, remaining at one place sometimes for a few

* Incorrectly spelled *Grey's Harbor* in Stielers Hand-atlas, 1891.

months, sometimes for years. It was in June, 1839, that he set out to discover, if possible, a river route between Ungava and the southern coast of Labrador; and about the middle of August he reached the Great Falls. His account of the discovery is very brief, as given in his *Twenty-five Years' Service in the Hudson's Bay Territory*, and according to Mr. Boyle the manuscript journal is almost identical with the printed volumes.

McLean is described as a man of high character and intelligence, well read in more than one language, and humane in his treatment of the natives, who regarded him as a friend.

He died at Victoria, British Columbia, March 5, 1890

FROUDE, AND THE U. S. SIGNAL SERVICE.—Mr. V. Freudenberg begins an article in *Ausland*, 1892, *No.* 16, *pp.* 244–246, with these words:

"The historian Froude, who resided in Jamaica during the years 1890 and 1891 as an official and observer of the United States Signal Service, expresses his conviction that nowhere else do such rainstorms occur as in Jamaica."*

Farther on two long passages are quoted from "Herr Froude": the first telling how a stream of water 6 inches thick poured on him while he was enjoying a bath in a pool; the second describing a tremendous rain that overtook him while out for a ride

* Der Historiker Froude, welcher sich als Beamter und Beobachter des United States Signal Service während der Jahre 1890 und 1891 in Jamaika aufhielt, spricht seine Ueberzeugung dahin aus, dass nirgend anderswo solche Regenstürme vorkommen, wie auf Jamaika.

on Hardware Gap. "Macintosh, umbrella, overshoes, etc," with which men ride on horseback, were of no more use than a mosquito-netting; the historian was wet to the skin, but he remembered what was due to the Signal Service, and found, on consulting his thermometer, that the temperature had fallen from 115° to 67° Fahrenheit.

Mr. Freudenberg writes with gravity and good faith, and his amusing legend, based upon Mr. Froude's visit to the West Indies, will furnish occupation to future biographers.

There was a station of the U. S. Signal Service at Kingston, Jamaica, during the years 1890 and 1891, and the name of the observer was Eugene M. Aaron.

MISS AMELIA B. EDWARDS.—The London *Academy*, of May 21, has the following note:

"Miss Amelia B. Edwards has left almost the whole of her property to found a professorship of Egyptology, under certain conditions, at University College, London. We believe that the value of the chair will amount to about £400 a year."

The *Academy* quotes from the *Revue Critique* Prof. Maspero's tribute to Miss Edwards in these words:

"Sa bienveillance, sa bonne grâce, son empressement à louer les mémoires de nos débutants, lui avaient conquis rapidement l'affection de tous: il n'y a personne parmi nous à qui elle n'ait rendu service, plutôt dix fois qu'une. Ce n'est pas seulement un confrère que nous perdons, c'est une amie dévouée dont beaucoup d'entre nous ne retrouveront jamais la pareille."

THE LA REINTY PRIZE, 1894.—The *Académie des Sciences, Belles-Lettres et Arts de Rouen* offers a prize of 500 francs to the author of the best work, manuscript or in print, written in French, or the best work of art, illustrating the political and social history, the commerce, or the natural history of the Antilles, now in the possession of France or formerly held by her.

Each manuscript must bear a written motto, identical with one inscribed on a sealed envelope, which contains the name and residence of the author.

Works intended for competition are to be sent, carriage paid, before the 1st of May, 1894, to M. Barbier de la Serre, or to M. Pierre Le Verdier, Secretaries of the *Académie.*

THE FIRST ITALIAN GEOGRAPHICAL CONGRESS.—The following letter was received too late in the month of May for action by the Society:

ROME, April 20th, 1892.

The Italian Geographical Society has been authorized by the Municipality of Genoa to convoke a Geographical Congress to be held in that city, in commemoration of the IV. Centenary of the discovery of America.

No historical event is more deserving of celebration by Geographers throughout the world.

It was this idea that inspired the International Geographical Congress, held at Bern in 1891, when it decreed that to the commemoration in Genoa and in Spain, all Geographical Societies should be invited to send Delegates.

In consideration of these facts, I have the honor to

invite your illustrious Society, in the name of the Italian Geographical Society and also in the name of the Municipality of Genoa, to send one or several Representatives to the above-mentioned Congress.

The Congress will take place from the 18 to the 25 of next September.

The Delegates will be received with all due honor, and will be able, in conformity with our Regulations, to make communications and take part in the work of the Congress.

Other foreigners who, by their presence and erudition, may be willing to increase the splendor of the solemnity, will also be welcome.

In the meantime, we should be glad to know, within as brief a delay as convenient, the Names of your Delegates, which will enable us to forward in due time the programmes, circulars and every other necessary document, and we shall be greatly obliged by your communicating the contents of the present invitation to every member of your Society.

I have the honor to be yours obediently,

The President of the Italian Geographical Society, and of the Committee of the Congress,

MARQUIS GIACOMO DORIA, Senator.

GEOGRAPHY AT OXFORD AND CAMBRIDGE.—Mr. H. J. Mackinder, Reader in Geography at Oxford, reports to the Council of the Royal Geographical Society (*Proceedings*, June, 1892) that the attendance of graduates and undergraduates upon his lectures during the past year was: In Michaelmas Term, 33 from 8 colleges; in Hilary Term, 26 from 8 colleges; in the Summer

Term, 17 from 8 colleges. There were, in addition to these, 14 registered students of the Association for the Education of Women in Oxford, nearly all of whom attended throughout the year.

The lectures on physical geography were followed by two undergraduates. Four candidates presented themselves for the studentship in Geography, which was awarded to Mr. G. Brindoe Grundy, B.A., of Brasenose College. Mr. Grundy is preparing to do some work in Bœotia.

Mr. Mackinder delivered also sixty-eight lectures during the winter at various towns. In the spring he paid a visit to the United States, and was impressed by the geographical laboratories in charge of Prof. Davis at Harvard University.

Mr. J. Y. Buchanan, Lecturer in Geography at Cambridge, reports an attendance of from eight to twelve for the course, which covered the two terms. He also gave instruction in general geography to the two candidates for the Teachers' Examination.

Mr. Mackinder describes the prospects as bright, and to Mr. Buchanan they seem much more encouraging than they were.

The Observatory on Mont Blanc.—The Lucerne correspondent of the London *Times* announces in a letter dated June 8 that M. Jannssen persists in carrying out his plan for an observatory on the summit of Mont Blanc. The examination made last year proved that no rock existed for a foundation, and now it is determined to build on the solid snow. To test this, a wooden cabin was put up at the end of last summer.

It was visited in January and again in the spring, and was found to be uninjured.

The observatory building, now under construction in Paris, is eight metres long and four in width (26.25x 13.12 feet), and consists of two floors, each with two rooms. The lower floor is to be embedded in the snow, and the upper is the observatory. The roof, nearly flat, will be furnished with a balustrade and a cupola ; and the building will rest upon six jack-screws, to restore the equilibrium in case of need.

A thousand feet below the summit there will be a supplementary observatory.

It is hoped that the structure will be completed and in place, with the exception of the cupola, during the summer.

THE PONTINE MARSHES.—Capt. von Donat, in an address before the Berlin *Gesellschaft für Erdkunde*, on the 5 of March, described his observations in a visit to the Pontine Marshes, and formulated a plan for their reclamation.

His first stage took him from Rome to the vine-embowered Velletri, a charming little city, enthroned at an elevation of 1,300 feet on a volcanic hill on the southern slope of the Alban Mountains, adorned with stately churches and antique palaces, full of cheerful life and busy idleness, and, taken altogether or piece by piece, equally picturesque and—dirty.

Beyond Velletri, the 41 miles to Terracina were made on the top of the post-omnibus, a cyclopean vehicle, "comparable to Father Noah's ark." At Cisterna the Marshes begin, and the effect of the un-

wholesome air is seen in the suffering faces of the sallow, feeble-looking inhabitants. On the stretch of 32 miles between Cisterna and Terracina there are but thirty persons and those in the lonely post-stations.

This sparse and sickly population is in striking contrast with the fertility of the soil, the beauty of the site, and the exquisite climate.

From Cisterna the Via Appia runs through the entire length of the Marshes, which are about 23 miles long with a breadth of nearly 5 miles, and an area of not far from 125 square miles.*

This great extent of land, fruitful as it is beyond comparison with any other portion of Europe and only to be equalled in India, is absolutely unfit for habitation or for culture; while its poisonous exhalations carry death abroad over an additional surface of 340 square miles, so that

"More than 100,000 hectares (250,000 acres),—an area on which a population of half a million might live in plenty, from the neighborhood of Velletri on the north and westward to the gates of Rome, the classic ground of the last six books of the Æneid, Nettuno, Antium, Ardea—, are nothing but a green wilderness, with a few ruins and utterly lonely huts."

The broad, navigable canal of the Linea Pio flows beside the Via Appia as far as Ponte Maggiore, where

* A summary of Capt. von Donat's paper, printed in the *Proceedings* of the Royal Geographical Society for June, pp. 421–423, strangely belittles the Pontine Marshes and the extent of the region subject to their influence. It says: "These marshes extend in a narrow belt, from 1 to 1½ miles broad, and 5 miles long, from Cisterna at the foot of the Alban Hills to Terracina, at the southern foot of the Volscian Mountains. The marshes cover an area of about 6 square miles, but their poisonous exhalations carry death over another 16 square miles." . . .

The figures are those of Capt. von Donat, whose miles and square miles are German, not English. 1 German mile is equal to 4.61 English miles; 1 German square mile is equal to 21.26 English square miles. The author's measurements, though not meant to be precise, fairly represent the facts; and how can his 100,000 hectares be taken for the equivalent of 16, or 22, English square miles?

the sometimes unruly streams of the Volscian hills, the Amazeno and others, discharge, and send only about 1-20 of their united waters through the Canale di Terracina, much the larger part turning to the right and finding its way through the Portatore di Badino to the sea.

The Volscian hills, on the east of the Pontine basin, have an especial influence upon its condition. They are of limestone, split up and full of cavities, and are wholly denuded of soil, so that the bare yellow rocks stand out against the sky. The soil swept down from these hills by the torrents, united with the amazing vigor of the water vegetation and its decomposed masses, may well have filled up the Pontine gulf.

The streams that flow down from these hills are liable to extraordinary changes. The Amazeno, which usually carries 9 cubic metres (1,980 gallons) of water a second, becomes, after a heavy rainfall, a furious torrent with a volume of 80 cubic metres (17,600 gallons). The other streams contribute in proportion ; and those of the Alban Mountains, though more regular in their flow, take with them from those steeper heights a constant accession to the deposit in the Marshes. With all this accretion the level is perceptibly, though not greatly, raised above the sea. There are broad tracts, covering many thousand hectares, where the surface is under water to the depth of a metre for months at a time ; and yet the whole basin would become dry of itself but for the constant inflow from the sources named, and one other. The conditions prove this, with the elevation of the surface 1 metre above the sea, and an additional rise of 7 centimetres (nearly 3 inches) for

every kilometre inland. Only about 1,000 hectares (2,500 acres) lie so low that there would be no fall to carry off the water; and this extent of surface might well be doubled in the process of drying and by the shrinking of the peat beds, which form the surface of the Marshes. This layer of peat, which is 3 metres (nearly 10 feet) in thickness at the Via Appia, increases towards the Volscian hills, where it reaches a depth of 22 metres (72 feet).

Besides the mountain streams already mentioned, there lies along the base of the Volscian hills another source of water supply in the springs that gush out, the Fiume Coperto, the Ninfa, the Cavata, and Horace's Feronia. A scientific calculation shows that these springs deliver ½ times as much water as could properly discharge itself from the whole Pontine watershed.

Capt. von Donat briefly reviews the history of the attempts to drain the Pontine Marshes, from the time of Appius Claudius to that of Pope Pius VI., and the survey made by Prony, under Napoleon I. This survey is declared to be so thorough that a study of it gives a knowledge of the Marshes, as complete as any that could be gained in a year's residence on the spot.

Capt. von Donat's own plan contemplates a radical cure. No stream, not even a drop of water, must be allowed to flow into the Marshes. All inflow must be intercepted by peripheral canals, and carried directly to the sea. This could be done very easily on the west, where the Sisto is as good as ready, needing only to have a canal 600 metres (2,000 feet) long cut through. On the left side of the Marshes the task would be

harder, where the Uffente, the Amazeno and the Pedicata would require to be shut off and to be conducted along the line of the road to Terracina.

Measures would be necessary to control the flow of the water from the Volscian hills so that the floods, which now pour out in 2½ days, would take four days to spend themselves, and the 80 cubic metres (17,600 gallons) of the Amazeno would be reduced to 50 cubic metres (11,000 gallons) a second. This could be effected :

(*a*) By encouraging the growth of plants, such as the cactus.

(*b*) By establishing a great many small funnels in the upper mountain regions and especially in the channels of the water-courses, so that the rain water should be collected and slowly passed through them.

(*c*) By larger dams.

By far the largest part of the now inundated district would free itself of water within a few weeks, if the supply from without were cut off by the means proposed.

The 2,000 low-lying hectares (5,000 acres) would be shut off from the rest of the Marsh region by small closed dams and provided with a special system of channels, and most of all with a single drain channel, or sluice, opening outwards and closing of itself with the return flood ; for the tide is felt in the canals for a distance of 8 kilometres (5 miles). The lower half of these 5,000 acres would be freed by pumping.

These operations could be carried through, Capt. von Donat says, on the outer edge of the Marshes, and therefore with the least possible danger to health for

the workmen, and completed in a single winter, if begun simultaneously at all points, at a cost of less than 1,000,000 lire ($200,000).

MERCURY AND PLATINUM IN RUSSIA.—Prof. E Muller, of Tashkent, contributes to the *Comptes Rendus* of the Paris Geographical Society, for April 22, a memorandum on the production of these metals in Russia.

Some deposits of mercury have been found in the Caucasus, but the establishment in the Bakhmutski district, in the government of Ekaterinoslav, founded within the last ten years, monopolizes the production, which amounts to more than 20,000 puds (720,000 pounds) of pure metal. This is furnished at so low a cost that Russia exports, after supplying her own demand, more than 500,000 pounds.

Platinum is found in the Ural Mountains, on both slopes. The mines of the Bisserski district, in the government of Perm, are the richest, and, as Prof. Muller remarks, might supply the demand of the whole world. It is only in the Ural that platinum is found in the form of grains, in beds of sand, often, but not always, containing gold. Some of the beds are covered by peat, of six or seven feet in thickness; others lie at a depth of from 30 to 45 feet; but the metal-bearing sand is of a nearly constant thickness of from 3 or 4 to 7 feet.

The beds in the north (the Bisserski and others) contain a good deal of gold, and the platinum is clear and brilliant, while in the Taghil district, on the western slope, the platinum is dark and is often found in association with iridium and osmium. The size of the

grains is about the same in both localities, and the metal is rarely found in the form of nuggets; when it is, the pieces weigh but a few pounds. In 1887, two nuggets were found in the Bisserski mines, one weighing a little more than a pound, the other about five pounds; and one nearly as heavy as the second was found in 1889, shaped like a horseshoe.

The annual production for the past twelve years has been about 7,050 pounds, and the consumption of the world is estimated by Prof. Muller at something more than 7,200 pounds.

As recently as the year 1860, when platinum was in small demand, the little grains were often used by those who found them for bird shot.

The platinum collected in the Ural mines is sent to St. Petersburg and goes thence almost exclusively to London, where it is quoted at the Exchange according to the quantity held by the Bank. It is only since 1886 that the price has exceeded 3,000 rubles a pud ($2,310 for 36 pounds). In 1890 the price rose to 12,000 rubles.

FU-SANG.*—In this pamphlet of sixty-eight pages, Mr. Schlegel offers the result of his studies on the supposed discovery of America by the Chinese, at an early period.

It was about the middle of the eighteenth century that M. de Guignes announced to the *Académie des Inscriptions et Belles-Lettres* that he had found in the an-

* Problèmes Géographiques—Les Peuples Étrangers chez les Historiens Chinois —Fou-sang Kouo. Le Pays de Fou-sang. Par Gustave Schlegel, Professeur de Langue et de Littérature chinoises à l'Université de Leide. (Leide, E. J. Brill, 1892.)

cient Chinese historians the statement that some Buddhist priests had discovered, in the fifth century, a country called Fu-sang, which he believed to be the western coast of America, and, more particularly, Mexico.

De Guignes's argument has been supported by Carl Friedrich Neumann (1841), Gustave d'Eichthal (1865), and Charles G. Leland (1875). It was vigorously attacked in 1834 by the orientalist Julius Heinrich Klaproth; but neither he nor the other writers who have taken sides on the question, can be said to have done more than to reaffirm or to deny the original supposition.*

According to Mr. Schlegel, it is only for Europeans that Fu-sang can be called an unknown country. Among the Chinese, it is supposed to be as well known as Japan or Formosa.

It figures in its place on the old Chinese maps (anterior to the arrival of the Jesuits) and Mr. Schlegel identifies it with the island of *Krafto*, *Krapto* or *Karafuto*, the *Saghalien* † of European maps.

* Mr. Schlegel adds in a note that *Krafto* was unknown in Europe till the maps constructed by the Jesuit Fathers in the reign of K'ang-hi came into the hands of D'Anville, who reproduced them in Du Halde's China and in the *Nouvel Atlas de la Chine* (1737). On the map, the island of Krafto, opposite the mouth of the Amur river, bore no name; but just at the mouth of the river were the Manchu words, *Saghalien anga hada*, signifying *Rocks of the black mouth;* a number of islets. The Manchu word for *island* is *tun*. Those who copied D'Anville's map kept only the word *Saghalien*, and applied it to the large island.

† Dr. S. Wells Williams, in a paper read before the American Oriental Society in October, 1880, admitted the probable identity of Fu-sang with Saghalien. He held two arguments, both derived from the report of Hwui-shin (Mr. Schlegel's Hoeï-chin), to be decisive against America:

(1) That the manufacture of *kin*, or brocade, from the bark of the Fu-sang tree is unknown outside of Saghalien;

(2) That the reference to the variation in the colors of the king's robes and the ten cyclic years shows that the people of Fu-sang knew and adopted the sexagenary (or Chinese) cycle for computing time and periods; while no such scheme is known to have existed among any people on the American Continent.

The Chinese writers indulge freely their taste for the marvellous and the extravagant, and their figures, whether for numbers or for distances, are not to be trusted. In examining their accounts of Fu-sang, Mr. Schlegel takes the geographical position of the country, its products, the description of the people, and their relations with China and with other countries.

Fu-sang is the country where the sun rises. All the authors speak of the tree Fu-sang, from the bark of which cloth and paper are made. Fu-sang produces, it is said, silk worms that make a yellow silk, which they attach to the branches of trees without spinning a cocoon. Among the fruits of Fu-sang there are red pears or apples, and grapes. Red gold is one of the minerals, and copper is found, but there is no iron, and the people value this metal more than gold or silver. One Chinese author mentions the "round precious stones" of Fu-sang, and a tribute sent from that country, A.D. 502–519, included a "precious stone with which to look at the sun." Hoeï-chin says that the oxen (probably reindeer) of Fu-sang have very large horns, and that the inhabitants raise deer as cattle are raised in China, and make quass of their milk. There are horses also in Fu-sang.

All these notices apply to the island of Saghalien.

Mr. Schlegel shows also that the descriptions of the people of Fu-sang, their habitations and customs, their government and administration, agree with the accounts of the Aïnos in Saghalien given by La Pérouse, the Dutch voyagers, Von Siebold and others. According to Hoeï-chin, the people of Fu-sang were acquainted with the art of writing, and this is unknown among the

modern Aïnos. Their traditions affirm, however, that in the 12th century of our era the Japanese hero Yochi-tsune possessed himself of the treasures and the *books* of the Aïnos, which he carried off; and from that time the Aïnos lost the arts of writing and of pottery.

Tung-fang soh is the only Chinese writer who gives anything like a reasonable idea as to the geographical position of Fu-sang. It lies, according to him, on the eastern coast of the Eastern Sea (Sea of Japan). Following the coast of China, from Korea northward, the Eastern Sea is on the right hand, and at the extremity of this sea, 10,000 *li* * distant, is Fu-sang, necessarily an island, for it is said to be in the sea.

A conclusive argument against the identification of Fu-sang with America is found in a passage of Sze-ma, who declares that the Kuro Siwo is to the eastward of Fu-sang, and Tch' in Lunkiung writes, in his geography: "East of Japan and the Liu-kiu (islands), the waters all flow towards the east, and this is what Tchoang-tsze means when he says that the *Mi-lü* (the Chinese name of the Kuro Siwo) bears them away."

Mr. Schlegel quotes in every instance the Chinese text on which he relies for a statement, and his criticism seems to dispose of one venerable delusion; but delusions die hard.

THE KOREAN REPOSITORY.—This monthly magazine is published at Seoul, and "mailed by the last steamer from Chemulpo"; but Nos. 2 (February) and 4

* The Chinese *li* is a little more than a third of a mile; but the ancient *li* was shorter than the modern.

(April) are all that have come to hand. These contain some sketches of travel, two articles on the Japanese invasion in the 16th century, the notice of the discovery of a triumphal monument erected 650 A.D., and a discussion of the question: "What is the Population of Korea?" Mr. Appenzeller is inclined to think that the kingdom may contain 7,200,000 persons; *A Subscriber* computes 80,000 villages for the whole country, with 100 or 150 persons to a village, and a total of 8,000,000 or 12,000,000; Mr. Jas. S. Gale, considering the ruinous state of all official institutions in Korea for the last half century, judges that the record of fifty years ago may serve for to-day, since the indications are that the population does not increase; and Père Dallet then wrote that perhaps 10,000,000—an average, that is, of six persons to a house—would not be far from the truth.

A MARCH ACROSS TIBET.—The London *Times* of April 26 publishes the report of a remarkable journey across Tibet, just accomplished by Capt. Bower, of the Indian Staff Corps. Capt. Bower had with him Dr. Thorold, a sub-surveyor, a Pathan orderly, a Hindustani cook, 6 caravan drivers, and 47 ponies and mules.

The start was made from Leh, June 14, and the Lanak Pass was crossed July 3. Thence the march due east led past a chain of salt lakes, one of which, Hor-Ba-Too, is at an elevation of 17,930 feet. In E. Long. 83°, N. Lat. 35°, a magnificent snowy range was seen, with a lofty peak.

For many weeks the journey was over table-lands 15,000 feet in height. There were no inhabitants, and

water was scarce. September 3, the party arrived at Gya-Kiu-Linchin on the north shore of the Tengri Nor. Here two officials from the governor of Lhasa peremptorily ordered Capt. Bower to go back. This he refused to do, and, after a parley, guides were furnished to lead him by a detour to the north to the frontier of Western China. He reached Chiamdo, December 31, having followed Bonvalot's route for some distance. Chiamdo is in a fertile, well-wooded country. The town is full of monks, who made threats against the travellers, but were held in awe by the breech-loaders.

Capt. Bower had intended to make his way to Upper Burma, but the Tibetans reported that 200 Europeans were at Tarchindo (Ta-tsien), and he proceeded thither, arriving on the 10th of February. Eight marches beyond brought him to a tributary of the Yang-tse-Kiang, and the rest of the journey was made by boat to Shanghai, which was reached March 29.

From Lanakma to Tarchindo the distance was over 2,000 miles, nearly all through a wholly unexplored country. Some of the marches were 30 miles long, and for 13 consecutive days the route was over a table-land, more than 17,000 feet above the sea.

Capt. Bower is engaged in writing his report.

A Recovery in Ashango-Land.—A letter from West Africa, printed in the New York *Sun*, of May 22, tells the following story concerning the baggage lost by the explorer, Paul B. Du Chaillu, during his running fight with the Ashangos.

The letter says: "These goods have never been disturbed. The natives, on going to the place where the

goods were dropped, say that some of the boxes began to talk. They doubtless referred to one of the music-boxes which were among Du Chaillu's presents for the native chiefs. In lifting a box containing one of these musical instruments it is likely that the music began to play, scaring the natives half to death. They decided that all the property of the white man was fetich, and that they and all their people would perish if they touched any of the goods, so everything was left just as it had fallen. . . . I, however, have taken away some of these interesting relics. One of them is a box containing a large magnet for polarizing the compasses. Another is a box containing a large number of English and French scientific periodicals. Mr. Townsend took away as a relic the inside of a musical box. I shall bring the relics back home to show that I have been on the ground where Du Chaillu sustained his severe defeat."

Mr. Du Chaillu's account of the fight and the retreat is given in Chapters XVII and XVIII of his *Journey to Ashango-Land.*

From Karagwe to the Albert-Edward Lake.—Dr. von Danckelman publishes, in the *Mittheilungen von Forschungsreisenden, u.s.w., V. Band, 2 Heft,* some remarks on a sketch-map received from Dr. Stuhlmann, who accompanied Emin Pasha in his march to his old province. The map was communicated by Dr. Stuhlmann's father, who received with it a letter written on the 12th May, 1891, from Vitshumbi at the S. W. end of the Ngezi (Albert Edward) Lake. The letter describes the route :

"From Kafuro in a N. N. W. direction to Kavingo in Iwanda, thence to the W. and W. N. W. through Mpororo and Butumbi to this place. The route very mountainous, even 2,100 metres (6,890 feet) in height close to the lake, and mountains quite as high on the other side of it. The Mfumbiro (mountain) lies in 1° 19′ S. Lat., and about 31° 4′* E. Long. W. S. W. of it a complete chain of six volcanic peaks, one of which, Kissigali, is immensely steep and fully 4,000 to 4,500 metres (13,124 to 14,764 feet) in height. The most westerly, Virungo, is still active.

"While a strong Wahuma population holds Mpororo and Butumbi, there are more of the Wakonjo in this place. From Karagwe to Mpororo, and for the most part also in Butumbi, the elevations are bare, grassy hills of schist, with occasional outcroppings of granite. Their direction is from S. W. to N. E. The mountains, 2,100 metres (6,890 feet) high on the margin of the lake, are wooded, with heaths above, and below the West African forest, with gray parrots, chimpanzees, etc.

"The lake, which is at an elevation of 840 metres (2,756 feet), and not, as Stanley writes, of 1,008 metres (3,307 feet), had once a much greater extension towards the south, as appears from the sub-fossil shells. Sixty years ago it must have reached the Bustue mountains, which lie three hours' march to the S. W. The river Rutsdúrra, from Ruhanda, enters the southern end of the lake with a breadth of 50 metres (164 feet).

"I have reason to be well satisfied with the geo-

* The figures in the *Mittheilungen* are "etwa 13° 4′ östlicher Länge"; an unlucky transposition.

graphical results. The route has been laid down by continual measurements, by astronomical determinations, and by aneroid-readings, and many new discoveries have been made."

Dr. von Danckelman adds in a note that the name of the river(Rutsdúrra) is not clear in Dr. Stuhlmann's manuscript, and that Rutschurra is perhaps the true name.

In *Petermanns Mitteilungen*, 38 Band, V, p. 126, Dr. H. Wichmann says: "If the latest telegraphic news is confirmed, the darkness which covers Emin Pasha's position begins to lighten. This telegram states that Dr. Stuhlmann returned on the 15th February to the station Bukoba on the western shore of the Victoria Nyanza, and that Emin was following slowly, kept back by sickness. According to the report of August, 1891, Emin, after crossing the Albert Edward lake, had gone towards the north, apparently with the intention of recovering his abandoned province. This latest telegram seems to show that he has not got so far, but has been compelled to return on account of the famine prevailing in Undussuma, a district about 50 kilometres (31 miles) to the W. of the southern end of the Albert Nyanza, where Stanley fought the Wasamboni. It is not explained in the telegram why Emin made so great a circuit to the west, nor why he did not pass round the famine-stricken region by another way, such, for instance, as the voyage across the lake."

The later report of Emin's death must be received with caution.

MR. L. DÈCLE ON THE UPPER ZAMBEZI.—A letter from Mr. Dècle, dated at "Palapye (Mangwato), capi-

tal of King Khama, chief of the Bamangwatos, 20 January, 1892," is published in No. 6 of the *Comptes Rendus* of the Paris Geographical Society.

In this letter the traveller says that he set out with 18 porters, on the 6th of December, for the Victoria Falls. The route generally taken lies on the left, or north, bank of the river. In order to examine the rapids between Kazungula and the Falls, Mr. Dècle followed the right bank of the river, and encountered many obstacles. He struggled sometimes through canebrakes, where the canes grew more than ten feet high, and he sank knee-deep in the marshy soil; sometimes through dense forests or tall grasses; and the rain poured steadily for the six days and nights of the march. There were antelopes everywhere, and the tracks of lions; and the river was full of hippopotami, especially about the rapids.

"At last," he says, "I reached the Falls. I frankly confess that I hardly know what to say of them. All those who have seen them have been so enthusiastic that I do not dare to utter my opinion, and shall therefore content myself with saying that the Falls would be imposing—if one could only see something of them. The entire river, nearly a kilometre and a half (almost a mile) in width, disappeared in the bowels of the earth, falling from a height which I estimate at 120 metres (394 feet) into a gorge less than 150 metres (492 feet) in breadth. The water is dashed upon the bottom of this gorge with such violence that it is thrown back again 100 metres (328 feet) above the river. The column of vapour is visible 10 kilometres (6 miles) away, and the roar of the Falls is heard at a considerable distance.

"It follows that on the other side of the gorge you are covered with sheets of water and find it impossible to make out the bottom. From one point alone you can see nearly 200 metres (656 feet) of the Falls at their full elevation. The impression that remains with you is like that which you feel after looking on at a great surgical operation; you are possessed by it, and you shudder. As for comparing the Victoria Falls with Niagara, that is impossible; the latter are imposing, the former are terrifying, more by what is imagined of them than by what is seen."

At the Falls Mr. Dècle was taken with the fever. As soon as he could travel, he turned to the south, and arrived in three days at Pandamatenga, where he expected to find grain; but the crops had failed, and he was obliged to move on. He was again attacked by the fever, which delayed him a week, and at last (Dec. 31) he reached Nata, in the Kalahari Desert, in a very weak state. He had just made up his mind to kill one of the two beasts he had (an ass), when some natives arrived, escorting one of King Khama's ambassadors. With their help he reached his camp on the 6th of January, and Palapye on the 18th. Two men were lost on this expedition. They were laggards, who did not keep up with the rest, and perished of hunger in the desert.

TITLES OF PAPERS IN GEOGRAPHICAL JOURNALS.

BERLIN.—*Verhandlungen der Gesellschaft für Erdkunde.*

Unveiling of the Monument to Gustav Nachtigal, February 23, 1892—Japanese Commerce (Dr. K. Rathgen)—The Vegetation of New Guinea

(Dr. O. Warburg)—First and Second Reports of Dr. G. Schott upon his Voyage in Eastern-Asiatic Waters—The Pontine Marshes (Capt. von Donat).

Zeitschrift.

Peter Sparnau and Ulrich von Tennstaedt's Pilgrimage to Jerusalem in 1385 (Reinhold Röhricht)—The First Expedition to take formal Possession of the Philippines (Eugen Gelcich)—The Elastic Recovery in Aneroids on High Mountains (Dr. A. von Danckelman)—Supplement to the Paper on the Geographical Extension of the Mammalia in the Black-Earth Region (Prof. Dr. A. Nehring)—An Answer to Hermann Wagner's Remarks on Anthropogeography (2d Article) by Friedrich Ratzel.

EDINBURGH.—*The Scottish Geographical Magazine.*

Japanese Characteristics. By Prof. C. G. Knott, D.Sc., etc.—Deep-Sea Deposits. By W. E. Hoyle, M.A.—Progress of the Indian Surveys, 1875 to 1890. By Colonel James Sconce—The Yellowstone Region and Its Geysers. By Henry M. Cadell, of Grange, B.Sc., etc.—The Meteorology of India and the Surrounding Sea-Areas. By H. N. Dickson, F.R.S.E., etc.—The Pygmy Tribes of Africa. By Dr. Henry Schlichter—The New Hebrideans. By the Rev. James H. Lawrie, of Aneityum—The Russian Kurds. By W. A. Taylor, M.A., F.R.S.E.

GOTHA.—*Petermanns Mitteilungen.*

The Island of Rotti (South of Timor), by Prof.

Dr. A. Wichmann—The Lake of Caldonazzo and Levico (Tyrol), by Prof. J. Damian—Contributions to the Knowledge of South-Eastern Persia (A. J. Ceyp)—The Mean Level of the European Seas (Prof. Dr. A. Supan).

LISBON.—*Boletim da Sociedade de Geographia.*

The Dominion of Portugal on the African Continent—Our Geodetic Labours—Lights and Buoys—Cabo Verde—Cabinda and Emigration—Sofala—The elevated Plain of Caconda and the Basin of the Lubango, considered with regard to European Colonization and the Cultivation of the Soil.

LONDON.—*Royal Geographical Society, Proceedings.*

Journeys in the Pamirs and the Adjacent Countries. By Capt. F. E. Younghusband, C.I.E. —Obituary: Henry Walter Bates, F.R.S.; Sir John Coode, G.C.M.G., F.R.G.S.—The Ruins of Mashonaland (Illustrated). By J. Theodore Bent, Esq.—The Geography and Meteorology of Mashonaland. By R. M. W. Swan, Esq.—List of Stations in Mashonaland. By R. M. W. Swan, Esq.—The Orientation of the Buildings at Zimbabwe. By R. M. W. Swan, Esq.—Discovery of the Galápagos Islands. By Clements R. Markham, Esq., C.B., F.R.S.—The New Lake in California. By Jacques W. Redway, Esq.—The Annual Address on the Progress of Geography: 1891–92. By the Right Hon. Sir Mountstuart E. Grant Duff, G.C.S.I.,

President—The Indian Surveys, 1890–91—A Recent Journey to the Headwaters of the Ucayali, Central Peru. By Alexander Ross, Esq. With Discussion—Geographical Education: The Year's Progress at Oxford and Cambridge. By H. J. Mackinder, Esq., and J. Y. Buchanan, Esq.—The Late Professor E. A. Freeman and His Services to Geography. By C. R. M.—Direct Communication between Upper Assam and Northern Burma—Obituary: General Sir Lewis Pelly, K.C.B., K.C.S.I., M.P.

MADRID.—*Sociedad Geográfica de. Boletín.*

Report on the Condition of the Society. By D. Adolfo de Motta—Report on Geographical Progress. By D. Martín Ferreiro—Gibraltar. By D. Luís García Martín—Problems of the Mediterranean. By D. Rafael Torres Campos—The Moors (natives) of the Philippines. By D. Fernando Blumentritt—Authentic Notices of the Famous River Marañon. By D. Marcos Jiménez de la Espada—The Island of Fernando Póo. By D. José Valero y Belenguer.

PARIS.—*Société de Géographie. Comptes Rendus.*

M. Léon Fabert on the Trarza Moors and the Southwestern Sahara—M. Rolland on the Subterranean Waters in the Upper Sahara of Alger, between Laghouat and El Goléa—The Geography of the Vosges—The Russian Railways—The Touaregs—M. Dècle on the Upper Zambezi—The Population of Eng-

land in the Nineteenth Century—Finnish Explorations in Northern Russia—Dr. Ten Kate in Oceania—Subterranean Explorations in France (M. Martel)—Production of Mercury and Platinum in Russia (Prof. E. Muller)—The Lepers of Bokhara—Population of Canada—The Malay Peninsula—The Mekong River—Measurement of Altitudes and the Level of the Sea.

ROME.—*Società Geografica Italiana, Bollettino.*

Travels among the Independent Bataks (E. Modigliani)—The Zoological Collections of the Bricchetti-Robecchi Expedition—Earthquake and Submarine Eruption at Pantelleria in the latter part of October, 1891 (A. Riccò)—The Size and Position of Sicily according to certain Greek Geographers (G. M. Columba)—China and Foreign Nations (U. Ojetti)—Unpublished Letter of Charles V to Cortés: Communicated by P. Peragallo—The Hydrographic Expedition of the *Scilla* in the Red Sea: a letter from her commander, G. Casanello—The First Crossing of the Somali Peninsula (Bricchetti-Robecchi)—Mountains in Modern Geography (F. Porena)—From Covendo to Reyes (L. Balzan)—Dr. Schweinfurth and Eritrea—An Abyssinian Interview in the Sixteenth Century—Prof. Marinelli's Universal Geography—Dr. Ganzenmüller's Explanation of Geographical Names.

TURIN.—*Cosmos.*

The Aru Islands (Western New Guinea). By

Prof. Guido Cora—Hydrographic Charts of the Swiss Lakes. By Prof. Dr. F. A. Forel—The Metric Value of the Degree of the Meridian, according to the Arab Geographers (C. A. Nallino).

WASHINGTON.—*The National Geographic Magazine.*

An Expedition through the Yukon District (Charles Willard Hayes).